

Notice of Allowability

Application No.

10/721,172

Examiner

Michael V. Datskovskiy

Applicant(s)

ITO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/26/2003.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/26/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

**MICHAEL DATSKOVSKIY
PRIMARY EXAMINER**

Michael Datskovskiy 10/17/05

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The claims 1-12 are allowable over the prior art of record for at least the reason that the prior art fails to teach or suggest a cooling fluid pump (or a personal computer including a CPU cooled by such a pump) in which pump a cooling fluid is caused to flow to cool a heating element, comprising: a casing brought into a direct contact or an indirect contact via a heat transfer member with the heating element; a pump chamber provided in the casing; an impeller rotatably provided in the pump chamber and including a pump groove formed in either one of both axial end faces; an inlet formed in the casing so that the cooling fluid is supplied therethrough into the pump chamber by an action of the pump groove with rotation of the impeller; and an outlet formed in the casing so that the cooling fluids discharged therethrough out of the pump chamber by an action of the pump groove with rotation of the impeller, wherein the impeller has an axis of rotation located radially away from a center of the casing.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Niwatsukino et al (US Patent 6,839,234) teach a personal computer 1, Figs. 1-9, including a CPU 3 cooled by a pump 7, in which pump a cooling fluid is caused to flow to cool a heating element 3, comprising: a casing 15 brought into a direct contact with the heating element 3; a pump chamber 15b provided in the casing; an impeller 13

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rotatably provided in the pump chamber 15b and including a plurality of pump grooves 12 formed in either of both axial end faces; an inlet 19 formed in the casing so that the cooling fluid is supplied therethrough into the pump chamber by an action of the pump grooves with rotation of the impeller; and an outlet 20 formed in the casing so that the cooling fluids discharged therethrough out of the pump chamber by an action of the pump groove with rotation of the impeller. Niwatsukino et al do not teach the impeller having an axis of rotation located radially away from a center of the casing.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Niwatsukino et al (US Patent Application Publication 2003/0072656 A1); Lian et al (US Patent 6,327,145); Roy (US Patent 6,408,937); Uomori et al (US Patent 6,832,646); Mori et al (Japan Patent JP2002094276A) and Shin (Japan Patent JP02002151638A).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Datskovskiy whose telephone number is (571) 272-2040. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Michael V. Datskovskiy".

Michael V Datskovskiy
Primary Examiner
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10/17/2005